

A. Mehta

1649

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/156,580A**

DATE: 06/17/1999  
TIME: 19:03:56

Input Set: I156580A.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

ENTERED

1 <110> APPLICANT: Takatsushi, Hiroshi  
2 Nakagawa, Hitoshi  
3 Director General of National Institute of Agrobiological  
4 Resources, Ministry of Agriculture, Forestry and Fisheries  
5 <120> TITLE OF INVENTION: Method for Shortening Internode of Inflorescence by  
6 Introducing Gene for Petunia Transcription Factor PetSPL2  
7 <130> FILE REFERENCE: 085761-000400US  
8 <140> CURRENT APPLICATION NUMBER: US/09/156,580A  
9 <141> CURRENT FILING DATE: 1998-09-18  
10 <150> EARLIER APPLICATION NUMBER: JP 10-224852  
11 <151> EARLIER FILING DATE: 1998-08-07  
12 <160> NUMBER OF SEQ ID NOS: 18  
13 <170> SOFTWARE: PatentIn Ver. 2.0  
14 <210> SEQ ID NO 1  
15 <211> LENGTH: 997  
16 <212> TYPE: DNA  
17 <213> ORGANISM: Petunia hybrida var. Mitchell  
18 <220> FEATURE:  
19 <221> NAME/KEY: CDS  
20 <222> LOCATION: (190)..(810)  
21 <223> OTHER INFORMATION: PetSPL2 transcription factor  
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24 tgcatgtacaa ctcctattta accctcacaa aaaaattacc agagggcagc aaaaaatgct 120  
25 tgaacataat tattatactt actattaagc tagatttcct cttgatctg cttagtttga 180  
26 ctggagaaa atg gca ggc atg gat aga aac agt ttc aac agt aag tac ttc 231  
Met Ala Gly Met Asp Arg Asn Ser Phe Asn Ser Lys Tyr Phe  
27 1 5 10  
28 aaa aac aaa agc atc atg gca aga cag atg gag tac ttg aat aac aac 279  
29 Lys Asn Lys Ser Ile Met Ala Arg Gln Met Glu Tyr Leu Asn Asn Asn  
30 15 20 25 30  
31 aat ggc gac aat aac aac aat aat gtt aca agc tca tta cga gat 327  
32 Asn Gly Asp Asn Asn Asn Asn Asn Val Thr Ser Ser Leu Arg Asp  
33 35 40 45  
34 aat tat gga aat gaa gat cat tta ctt ggt gga cta ttc tct tgg cct 375  
35 Asn Tyr Gly Asn Glu Asp His Leu Leu Gly Gly Leu Phe Ser Trp Pro  
36 50 55 60  
37 cca aga tct tat aca tgt agc ttt tgt aaa agg gaa ttt aga tct gct 423  
38 Pro Arg Ser Tyr Thr Cys Ser Phe Cys Lys Arg Glu Phe Arg Ser Ala  
39 65 70 75  
40 aca gct ctt ggt gga cac atg aat gtt cat aga aga gat aga gcc att 471  
41 Gln Ala Leu Gly Gly His Met Asn Val His Arg Arg Asp Arg Ala Ile  
42 80 85 90  
43 ttg aga caa tca cca cct aca qat att aat agg tat tct ctt cta aac 519  
44

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45 Leu Arg Gln Ser Pro Pro Arg Asp Ile Asn Arg Tyr Ser Leu Leu Asn  
 46 95 100 105 110  
 47 ctt aat ctt gaa cca aac cct aac ttt tac cct agt cat aac cct agt 567  
 48 Leu Asn Leu Glu Pro Asn Pro Asn Phe Tyr Pro Ser His Asn Pro Ser  
 49 115 120 125  
 50 ttt tca aga aaa ttc cca cct ttt gaa atg agg aaa tta gga aaa gga 615  
 51 Phe Ser Arg Lys Phe Pro Pro Phe Glu Met Arg Lys Leu Gly Lys Gly  
 52 130 135 140  
 53 gtt gtt cca aac aat cac ttg aaa agt gcc aga ggg cgt ttt gga gtt 663  
 54 Val Val Pro Asn Asn His Leu Lys Ser Ala Arg Gly Arg Phe Gly Val  
 55 145 150 155  
 56 gag aaa att gac tct ttc atg caa gaa aaa gaa tgt act act aca gtg 711  
 57 Glu Lys Ile Asp Ser Phe Met Gln Glu Lys Glu Cys Thr Thr Thr Val  
 58 160 165 170  
 59 atc aag aag tcc gag ttt cta aga ttg gac ttg gga att ggg ttg atc 759  
 60 Ile Lys Lys Ser Glu Phe Leu Arg Leu Asp Leu Gly Ile Gly Leu Ile  
 61 175 180 185 190  
 62 agt gaa tca aag gaa gat tta gat ctt gaa ctt cga ctg gga tcc act 807  
 63 Ser Glu Ser Lys Glu Asp Leu Asp Leu Glu Leu Arg Leu Gly Ser Thr  
 64 195 200 205  
 65 taactatac taattttac ggcattaagg tttgtaaatt gagtcgacag ottagtcaaa 867  
 66 actacttatg cactttaata tggcttcttg tgctatattt atttatttta catggctgta 927  
 67 tctaggttgc catttaaga tttagtacct tgtcagatta aaagaaaacg aaagttaaat 987  
 68 taaaaaaaaaaaa 997  
 69 <210> SEQ ID NO 2  
 70 <211> LENGTH: 206  
 71 <212> TYPE: PRT  
 72 <213> ORGANISM: Petunia sp.  
 73 <400> SEQUENCE: 2  
 74 Met Ala Gly Met Asp Arg Asn Ser Phe Asn Ser Lys Tyr Phe Lys Asn  
 75 1 5 10 15  
 76 Lys Ser Ile Met Ala Arg Gln Met Glu Tyr Leu Asn Asn Asn Gly  
 77 20 25 30  
 78 Asp Asn Asn Asn Asn Asn Val Thr Ser Ser Leu Arg Asp Asn Tyr  
 79 35 40 45  
 80 Gly Asn Glu Asp His Leu Leu Gly Gly Leu Phe Ser Trp Pro Pro Arg  
 81 50 55 60  
 82 Ser Tyr Thr Cys Ser Phe Cys Lys Arg Glu Phe Arg Ser Ala Gln Ala  
 83 65 70 75 80  
 84 Leu Gly Gly His Met Asn Val His Arg Arg Asp Arg Ala Ile Leu Arg  
 85 85 90 95  
 86 Gln Ser Pro Pro Arg Asp Ile Asn Arg Tyr Ser Leu Leu Asn Leu Asn  
 87 100 105 110  
 88 Leu Glu Pro Asn Pro Asn Phe Tyr Pro Ser His Asn Pro Ser Phe Ser  
 89 115 120 125  
 90 Arg Lys Phe Pro Pro Phe Glu Met Arg Lys Leu Gly Lys Gly Val Val  
 91 130 135 140  
 92 Pro Asn Asn His Leu Lys Ser Ala Arg Gly Arg Phe Gly Val Glu Lys  
 93 145 150 155 160  
 94 Ile Asp Ser Phe Met Gln Glu Lys Glu Cys Thr Thr Val Ile Lys

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95                         165                         170                         175  
96     Lys Ser Glu Phe Leu Arg Leu Asp Leu Gly Ile Gly Leu Ile Ser Glu  
97                         180                         185                         190  
98     Ser Lys Glu Asp Leu Asp Leu Glu Leu Arg Leu Gly Ser Thr  
99                         195                         200                         205  
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103 <213> ORGANISM: Artificial Sequence  
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105 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate  
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108 <221> NAME/KEY: modified\_base  
109 <222> LOCATION: (6)                         /  
110 <223> OTHER INFORMATION: i  
111 <220> FEATURE:  
112 <221> NAME/KEY: modified\_base  
113 <222> LOCATION: (9)                         /  
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116 <221> NAME/KEY: modified\_base  
117 <222> LOCATION: (12)                         /  
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122 <223> OTHER INFORMATION: i  
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127 <212> TYPE: DNA  
128 <213> ORGANISM: Artificial Sequence  
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130 <223> OTHER INFORMATION: Description of Artificial Sequence:degenerate  
131                         primer 2  
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133 <221> NAME/KEY: modified\_base  
134 <222> LOCATION: (3)                         /  
135 <223> OTHER INFORMATION: i  
136 <220> FEATURE:  
137 <221> NAME/KEY: modified\_base  
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139 <223> OTHER INFORMATION: i  
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166 arncknaryt cnarrtc 17  
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170 <213> ORGANISM: Artificial Sequence  
171 <220> FEATURE:  
172 <223> OTHER INFORMATION: Description of Artificial Sequence:amino acids  
173 present in both SUPERMAN gene of Arabidopsis  
174 thaliana and GmN479 gene of soy bean root nodules  
175 <400> SEQUENCE: 6  
176 Gln Ala Leu Gly Gly His  
177 1 5  
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180 <212> TYPE: PRT  
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182 <220> FEATURE:  
183 <223> OTHER INFORMATION: Description of Artificial Sequence:amino acids  
184 present in both SUPERMAN gene of Arabidopsis  
185 thaliana and GmN479 gene of soy bean root nodules  
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187 Leu Gly Gly His Met Asn  
188 1 5  
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192 <213> ORGANISM: Artificial Sequence  
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195 present in both SUPERMAN gene of Arabidopsis  
196 thaliana and GmN479 gene of soy bean root nodules  
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198 Asp Leu Glu Leu Arg Leu  
199 1 5  
200 <210> SEQ ID NO 9  
201 <211> LENGTH: 43  
202 <212> TYPE: PRT  
203 <213> ORGANISM: Artificial Sequence  
204 <220> FEATURE:  
205 <223> OTHER INFORMATION: Description of Artificial Sequence:SUPERMAN zinc  
206 finger motif  
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209 1 5 10 15  
210 Leu Gly Gly His Met Asn Val His Arg Arg Asp Arg Ala Arg Leu Arg  
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212 Leu Gln Gln Ser Pro Ser Ser Ser Thr Pro  
213 35 40  
214 <210> SEQ ID NO 10  
215 <211> LENGTH: 42  
216 <212> TYPE: PRT  
217 <213> ORGANISM: Artificial Sequence  
218 <220> FEATURE:  
219 <223> OTHER INFORMATION: Description of Artificial Sequence:PetSPL1 zinc  
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223 1 5 10 15  
224 Leu Gly Gly His Met Asn Val His Arg Arg Asp Arg Ala Arg Leu Arg  
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226 Leu Gln Ser Pro Pro Arg Glu Asn Gly Thr  
227 35 40  
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230 <212> TYPE: PRT  
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232 <220> FEATURE:  
233 <223> OTHER INFORMATION: Description of Artificial Sequence:PetSPL2 zinc  
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238 Leu Gly Gly His Met Asn Val His Arg Arg Asp Arg Ala Ile Leu Arg  
239 20 25 30  
240 Gln Ser Pro Pro Arg Asp Ile Asn Arg  
241 35 40  
242 <210> SEQ ID NO 12  
243 <211> LENGTH: 43  
244 <212> TYPE: PRT

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VERIFICATION SUMMARY  
PATENT APPLICATION US/09/156,580A

DATE: 06/17/1999  
TIME: 19:03:56

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Line ? Error/Warning	Original Text
124 W "N" or "Xaa" used: Feature required	cargcnytng gnggnca
145 W "N" or "Xaa" used: Feature required	ytnngnggnc ayatgaay
166 W "N" or "Xaa" used: Feature required	arncknaryt cnarrtc